

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038513	ACI001-VC	1	1	Net 30	MT-HRS-P-0.500	Hot Rolled Steel Plate 0.500" (44W) receive sf				16	12/7/2017	16	S017914	Stock	12/6/2017	\$ 13.91 / sf	0		\$222.62	Acier Ouellette Inc.	
		2			MT-HRS-P-0.375	Hot Rolled Steel Plate 0.375" (44W) receive sf						32	S017915	Stock	12/6/2017	\$ 11.37 / sf	0		\$363.72	Acier Ouellette Inc.	
		3			MT-HRS-P-0.188	Hot Rolled Steel Plate 0.188" (44W) receive sf						16	S017916	Stock	12/6/2017	\$ 5.53 / sf	0		\$88.48	Acier Ouellette Inc.	
		4			M1018B0.625X05.000	1010-1025 Steel Bar .625 X 5.000 : MATERIAL: AISI 1010-1025 OR ASTM A36/A368/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft							6	S017917	Stock	12/6/2017	\$ 18.34 / ft	0		\$110.08	Acier Ouellette Inc.
		5			MT-4140QT-R1.250	MT-4140 QT-R1.250						12		42	S017918	Stock	12/6/2017	\$ 6.51 / ft	0		\$78.07
									Total:	66		82									\$681.39

Plex 12/6/2017 9:20 AM Dart.Piouffe.Sonia



ACIER OUELLETTE INC.
935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1

Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Delivery date

2017/12/05

Customer N°

CL10001056

Your order N°

038513

Date

2017/11/30

Processed by

Salesman

Carrier

Credit Terme

Page

Internal Use Only

Order - Sales

Copy C000064889

Product Description	Weight	Qty	U/M	PCS NB							Page	
				CMD	EXP	B/O	IN	I	S	C	OUT	
1 FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V 2957 <i>1 X 6' HEAT: 45610914</i>	63.75	6.00	PL-\$CLB	1.00								
TRANSIT ST-JEROME LE 04/12 COUPE A LA SCIE SCIE												
3 ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V <i>1 X 12' HEAT: 45610914</i>	50.06	12.00	PL-\$CLB	1.00								
COUPE A LA SCIE SCIE												
4 PLATE 44W 3/16 RANDOM P44-316-V <i>1 X 4' X 4' HEAT: 442C4</i>	122.40	16.00	PL-\$CLB	1.00								



DELIVERY - CLIENT

CO00064889

ACIER OUELETTE INC.

935, Boui, du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242**Billed to**

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7**Shipped to**

Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200
Instruction F-M

OUELETTE VALLEYFIELD

2017/12/05

038513

Josianne Bourdon

Customer N°

CL10001056

2017/11/30

Date

Delivery date

Your order N°

Processed by

Salesman

Carrier

Credit Terme

Page

Net 30 Days

Product Description

Instruction	Delivery Route	5	Weight	Qty	U/M	CMD	EXP	B/O	IN	Internal Use Only			
										I	S	C	OUT
1	FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V	2957	63.75	6.00	PI-\$CLB					18'	6		
	1 X 6' HEAT												
	TRANSIT ST-JEROME LE 04/12												
	COUPE A LA SCIE SCIE	1			UN								
3	ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V	4897	50.06	12.00	PI-\$CLB					18'	12'		
	1 X 12' HEAT												

NIR : R-109516-6



ACIER OUELLETTE INC.

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0072770

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél : 613-632-5200

Product N° and description	Weight	Qty U/M	Qty U/M	Price	Pcs Nb	Price	Amount
PLATE 44W 1/2 RANDOM P44-12-V 4062 <i>1 X 4'X 4' P & O NOT AVAILABLE IN 1/2"</i>	326.40	16.00 PI2_\$CLB	16.00 PI2		1.00	222.620	222.62
COUPE AU FEU FEU 3 <i>STOCK</i>		1.00 UN	1.00				
PLATE 44W 3/8 RANDOM P44-38-V 4116 <i>1 X 4'X 8' P & O NOT AVAILABLE IN 3/8"</i>	244.80	16.00 PI2_\$CLB	16.00 PI2		1.00	181.860	181.86
COUPE AU FEU FEU 3 <i>STOCK</i>		1.00 UN	1.00				
PLATE 3/16 P & O <i>1 X 4'X 8' 45 DAYS</i> <i>N</i> <i>187.11</i> <i>448</i>	0.00	1.00 UN	1.00 UN		1.00	240.000	240.00
SURCHARGE ENERGETIQUE FRAIS ENERGETIQUE		\$					3.95
<i>P 10: 385/3</i>							
Total Weight (Lbs)	571.20						

Total Weight (Lbs) 571.20

Important

This offer is based on availability and current pricing conditions that may be revised upon
pre-emption of the evolution of the prices of the steel on the market.
Cette offre est basée sur l'offre et les conditions de prix actuelles qui peuvent être révisées
en fonction de l'évolution des prix de l'acier sur le marché.
Cette offre est sujet à tout changement de la situation du crédit.

Approved and Accepted by :

Sub-total 648,43

TVH-13 : : 84 30

Date: _____

Total (\$CAD)

732.73



ACIER OUELLETTE INC.

935, Boul. du Hâvre
 Salaberry de Valleyfield (Québec) J6S 5L1
 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0074081

Billed to
 DART AEROSPACE LTD
 1270, ABERDEEN ST.
 HAWKESBURY, Ontario, K6A 1K7

Shipped to
 , Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°	CLI0001056
Date	2017/11/29
Revision N°	0
Prices valid until	2017/12/06
Your Order N°	
Processed by	BERNARD
Salesman	JOSIANNE
Carrier	OUELLE SDV
Credit Terms	Net 30 Days
Page	1

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
FLAT CR 5/8 X 5 1018 RANDOM FCR-585-V 2957 1 X 6' 2-3 DAYS	63.75	6.00	PI_\$CLB	6.00	PI		1.00	110.060	110.06
COUPE A LA SCIE SCIE 1		1.00	UN	1.00					
PLAT 4140 1/2 X 4 HT N 1 X 6' OFFER HT 2-3 DAYS	0.00	1.00	UN	1.00	UN		1.00	165.000	165.00
ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V 4897 1 X 12' STOCK OFFER HT	50.06	12.00	PI_\$CLB	12.00	PI		1.00	78.070	78.07
COUPE A LA SCIE SCIE 1		1.00	UN	1.00					
ROND 4130 5/16 N NON DISPONIBLE	0.00	1.00	UN	1.00	UN	0.00	1.00		0.00
OFFER									
ROUND 4140 ANNEALED 5/16 RANDOM R4140-516A-V 4971 1 X 20' R/L 2-3 DAYS	5.22	20.00	PI_\$CLB	20.00	PI		1.00	12.370	12.37
PLATE 44W 3/16 RANDOM P44-316-V 4105 1 X 4' X 4' STOCK	122.40	16.00	PI2_\$CLB	16.00	PI2		1.00	88.480	88.48
SHEAR CUT SHEAR 2		1.00	UN	1.00					
SURCHARGE ENERGETIQUE FRAIS ENERGETIQUE			\$						3.95

Total Weight (Lbs) 241.43

Important

This offer is based on availability and current pricing conditions that may be revised upon
 réception de l'offre de l'évolution des prix de l'acier sur le marché.
 Cette offre est sujette aux conditions de disponibilité et de prix du marché.

Approuved and Accepted by :

Date :

Sub-total 457.93

TVH-13 59.53

Total (\$CAD) 517.46

Chantal Lavoie

From: Daniel Paquette
Sent: Wednesday, November 29, 2017 8:59 AM
To: Chantal Lavoie
Subject: FW: A36 PICKLED IN OIL Ref; RBW6505G00831-3G

Use DWG. MT-HRS-P. This is for "non" pickled in oil (normal steel) Scott will deviate the drawing until we can figure out what to do in the future. Thanks.

Ex; MT-HRS-P-0.500

Numbers are not in PLEX yet I will have them put in and let you know ASAP.

From: Daniel Paquette
Sent: Wednesday, November 22, 2017 11:42 AM
To: Chantal Lavoie <clavoie@dartaero.com>
Subject: A36 PICKLED IN OIL Ref; RBW6505G00831-3G

Can you order this material please. Thanks.

0.500 thick 4' X 4' SHEET
0.375 thick 4' X 4' SHEET
0.187 thick 4' X 4' SHEET

One of each please.

DANIEL PAQUETTE
Production Engineering Coordinator

DART AEROSPACE
T 1 613 632-5200 > 236
F 1 613 632-5246
1 800 556-4166
www.dartaerospace.com





Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

**PURCHASE ORDER
PO038513**

Supplier: ACI001-VC
Acier Ouellette Inc.
935 Boul. Du Havre
Valleyfield
QC
J6S 5L1 Canada
Phone: 800 667 4248
Fax: 450 377 5696

PO No: PO038513
PO Date: 11/29/17

Due Date: 12/7/17

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

E-MAILED
NOV 30 2017

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30

Freight Terms:

Special Comments: quotation no, sou0072770,sou0074081

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	MT-HRS-P-0.500	Hot Rolled Steel Plate 0.500" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$13.91375/sf	\$222.62
2	MT-HRS-P-0.375	Hot Rolled Steel Plate 0.375" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$11.36625/sf	\$181.86
3	MT-HRS-P-0.188	Hot Rolled Steel Plate 0.188" (44W) receive sf	Firmed	12/7/17	16 sf	0 sf	16 sf	\$5.53/sf	\$88.48
4	M1018B0.625X05.000	1010-1025 Steel Bar .625 X 5.000 : MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40- 21 OR 38W/44W/50W/60W/70W receive ft	Firmed	12/7/17	6 ft	0 ft	6 ft	\$18.34333/ft	\$110.06
5	MT-4140QT-R1.250	MT-4140 QT-R1.250	Firmed	12/7/17	12 ft	0 ft	12 ft	\$6.505833/ft	\$78.07

Grand Total: \$681.09

Order Notes

SPR-12-loc

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents
A048 counterfeit parts avoidance, detection, mitigation and disposition program
A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-455-4242

Customer N° CL0001056
Date 2017/11/30

Billed to

DART AEROSPACE LTD
1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

Ontario,
, Ontario,

Delivery date

2017/12/04
038513

Customer N°

Processed by

Josianne Bourdon

Salesman

Carrier

Credit Term

Page

1

Order - Sales

Copy CO00064891

Product Description	Weight	Qty	U/M	PCS NB							Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C	OUT			
1 PLATE 44W 1/2 RANDOM P44-12-V	326.40	16.00	PI2_SCLB	1.00										
1 X 4X 4' HEAT 711852 COUPE AU FEU FEU		1.00	UN											
2 PLATE 44W 3/8 RANDOM P44-38-V	244.80	16.00	PI2_SCLB	1.00										
1 X 4' X 8' HEAT 7093C4-51 COUPE AU FEU FEU		1.00	UN											
SURCHARGE ENERGETIQUE FRAIS ENERGETIQUE		\$ 0.00												

Total Weight (LBS): 1 571.20

NIR : R-109516-6

Conditions :

All sold and delivered materials remain the property of "Acer Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acer Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acer Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in within five (5) days from this contact will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the re-possession of the goods sold. All claims must be made within five (5) days from this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :

Verified By :

Delivered By :

Time

Customer's Signature

Y M D

Total (\$CAD)
Deposit
Balance

461.53
0.00
461.53

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M10180.625X05.000
 DATE: DEC 07 2017

PO / BATCH NO.: 038513/5017917

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 6"
 QUANTITY INSPECTED: 6"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .625
 THICKNESS RECEIVED: .625
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	→ Dark tooling use only
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Heat # KYS13683
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pu</u> <u>9.80</u>	SIGNED OFF BY: _____
DATE: <u>DEC 07 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018A.750W.125
 DATE: DEC 07 2017

PO / BATCH NO.: 038507/5018265

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20"
 QUANTITY INSPECTED: 20"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .750
 THICKNESS RECEIVED: .790
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>N</u>	
CORRECT FINISH	Y <u>N</u>	
CORROSION	Y <u>N</u>	
CORRECT GRAIN DIRECTION	Y <u>N</u>	
CORRECT MATERIAL PER M-DRAWING	Y <u>N</u>	— Dark tooling use only DAS
CORRECT THICKNESS	Y <u>N</u>	8
PHOTO REQUIRED	Y <u>N</u>	9.82
CORRECT REF # TO LINK CERT	Y <u>N</u>	Heat # 52074320/04
CORRECT MATERIAL IDENTIFICATION	Y <u>N</u>	
CORRECT M# ON THE MATERIAL	Y <u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AS</u> <i>DAS</i> <i>9</i>	SIGNED OFF BY: _____
DATE: <u>DEC 07 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1018 B0.500x01.000
 DATE: DEC 07 2017

PO / BATCH NO.: 038507/5018266

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12"
 QUANTITY INSPECTED: 12"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	— Dart tooling use only DAS
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	g fep
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Heat # 588829
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>JCL</u> <small>DAS g fep</small>	SIGNED OFF BY: _____
DATE: <u>DEC 07 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-414QT-R 1.250
 DATE: DEC 07 2017

PO / BATCH NO.: 038513/5017918

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 12"
 QUANTITY INSPECTED: 12"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250
 THICKNESS RECEIVED: 1.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<i>Astm 4140</i>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<i>Heat # 45610914</i>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>Paul</u>	SIGNED OFF BY: <u>8</u>
DATE: <u>DEC 07 2017</u>	DATE: <u>17/12/17</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

1	2	3	4	5	6	7	8
REV.							

A	A	A	A	A	A	A	A
---	---	---	---	---	---	---	---

PURCHASE MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR
 SPECIFICATION: ASTM 4140 QT or ASTM 4142 QT
 PART NUMBER: MT-4140QT-R [D,DDD]
 WHERE "D,DDD" = DIAMETER IN INCHES
 E.G. 5/8" ROUND BAR = MT-4140QT-R0.625

 AISI 4140 Q&T ROUND BAR <small>Barstock, Ontario, Canada</small>	MT-4140QT-R <small>REV A</small>
ITEM NO.	
DESIGN BY: VM 8/9/2017	
DRAWN BY: VM Q8/14/2017	
CHECKED: VM Q8/14/2017	
MFG. APPR.: DP Q8/14/2017	
QA APPR.: PD Q8/14/2017	
APPROVED: VM Q8/14/2017	
DATE: 9/14/2017	
SCALE: NTS	
<small>PRINTS OBTAINED BY DART AEROSPACE LTD. ARE FOR INFORMATION ONLY AND ARE NOT TO BE USED FOR ANY MANUFACTURING PURPOSES. DART AEROSPACE LTD. IS NOT RESPONSIBLE FOR ANY DAMAGES OR INJURIES WHICH MAY RESULT FROM THE USE OF THIS DRAWING.</small>	
<small>PRINTS OBTAINED BY DART AEROSPACE LTD. ARE FOR INFORMATION ONLY AND ARE NOT TO BE USED FOR ANY MANUFACTURING PURPOSES. DART AEROSPACE LTD. IS NOT RESPONSIBLE FOR ANY DAMAGES OR INJURIES WHICH MAY RESULT FROM THE USE OF THIS DRAWING.</small>	
1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0-188
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5017916

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 16 ft²
 QUANTITY INSPECTED: 16 ft²
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.188
 THICKNESS RECEIVED: 0.188
 SHEET SIZE ORDERED: 4x4
 SHEET SIZE RECEIVED: 4x4 ~~4x4~~

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	44 w
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Heat# 442C4
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>ml</u>	SIGNED OFF BY: <u>5</u> <u>ml</u>
DATE: <u>DEC 09 2017</u>	DATE: <u>12/24</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

HOT ROLLED STEEL PLATE

ASTM A36 OR ASTM A1011 OR ~~44W~~ OR ASTM A1018
MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES
MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

EXAMPLE:

1	2	3	4	5	6	7	8
REV.							
B							

D	C	B	A
DART AEROSPACE <small>Waterloo, Ontario, Canada</small>			
MT-HRS-P HOT ROLLED STEEL PLATE			
REV. B			
DESIGN BY: SAC 9/8/2017 DRAWN BY: SAC 09/27/2017 CHECKED: VM 09/22/2017 APG APPRO: DP 09/22/2017 APPROVED: WM 10/06/2017 DATE: 9/27/2017 SCALE: NTS WEIGHT: N/A			
FRACTIONS: $\frac{1}{16}$ $\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$ $\frac{7}{8}$ ANGLES: 15° 30° 45° 60° 75° 1. DIMENSIONS ARE IN INCHES 2. UNLESS OTHERWISE SPECIFIED ASME Y14.5M-2009 3. DIMENSIONAL LIMITS APPLY EXCEPT AS FOLLOWS: 1. DESIGNER'S TOLERANCES 2. MANUFACTURER'S TOLERANCES 3. ASSEMBLY TOLERANCES 4. OTHER TOLERANCES			
COPYRIGHT © 2017 BY DART AEROSPACE, LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS PROPERTY OF DART AEROSPACE, LTD. IT IS FOR INTERNAL USE ONLY AND IS NOT TO BE COPIED, REPRODUCED, OR DISCLOSED, IN WHOLE OR IN PART, WITHOUT THE EXPRESSED WRITTEN CONSENT OF DART AEROSPACE, LTD.			

Customer P.O.	B94089	Sales Order	102711.1
Product Group	Cold Finish Bar	Part Number	340201
Grade	1018 ASTMA108	Lot #	X1100035
Size	Flat 0.6250x5.0000 (0080)	Heat #	KYS13683 ✓
Product	FL 0.6250" x 5.0000" 1018 CD	B.L. Number	X1-100425
Description	CF Grade 1018	Load Number	X1-100367
Customer Spec		Customer Part #	V732211

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed above and that it satisfies those requirements.

Part Detail: FL 0.6250" x 5.0000" 1018 12-B Cold Drawn

C	Mn	P	S	Si	Cu	Cr	Ni	Mo	V	Cb
0.16%	0.65%	0.010%	0.023%	0.22%	0.23%	0.11%	0.08%	0.030%	0.0020%	0.002%

Melting Mill: KENTUCKY Country of Melting: USA Grain Practice: COARSE

Reduction Ratio 7.7 :1 Country of Rolling: USA Rolling Mill: KENTUCKY

1. Material certifies to ASTM A108 - 13 (unless otherwise noted) for Standard Cold Finished Bars
2. No welding or weld repair was performed on this material.
3. Mercury, radium, or alpha source materials in any form have not been used in the production of this

MAR 10 2010

Chris Kelly

Chris Kelly



SIMEC INTERNATIONAL, S.A. DE C.V.

GRUPO
SIMEC

Aseguramiento de la Calidad

CERTIFICADO DE CALIDAD N°
CERTIFICATE OF QUALITY N°

14-4561B

ACEROS ESPECIALES

CUSTOMER ORDER: 210049

The products supplied are in compliance with the requirements of the order.

CLIENTE

CUSTOMER N° DE COLADA	Magellan Corporation	GRADO DE ACERO	
		STEEL GRADE	4140H / 4142
HEAT N°	45610914	SECCION SIZE	1.1/4"
COLOR CODE	Blue and White	SHAPE	Round

ANALISIS QUIMICO %

CHEMICAL ANALYSIS % (In accordance to ASTM A751-11) (DI : Caterpillar 1E0038)

C	Mn	Si	P	S	Cr	Ni	Mo	Al	Cu	Sn	P+S	V	D.I	H2(ppm)
.40	.92	.29	.020	.020	.91	.10	.180	.027	.25	.018	.040	.000	5.51	<3ppm

METALOGRAFIA
METALLOGRAPHY

(In accordance to ASTM E112-12)

TAMANO DE GRANO GRAIN SIZE	DECARBURIZACION DECARBURIZATION	ESTRUCTURA STRUCTURE	(In accordance to ASTM E45-13)			
			INCLUSIONES NO METALICAS NONMETALLIC-INCLUSIONS			
			A	B	C	D
6-8	0.007 "	Perlite-Ferrite	2.0T	0.5T	1.0T	1.0T
			0.0H	0.0H	0.0H	0.0H

PROPIEDADES MECANICAS

MECHANICALS PROPERTIES

(In accordance to ASTM A370-14)

RESISTENCIA A LA TENSION TENSILE STRENGTH (KSI)	LIMITE DE CEDENCIA YIELD STRENGTH (KSI)	REDUCCION DE AREA REDUCTION IN AREA	Reduction ratio = 32.33	
			% ALARGAMIENTO ELONGATION IN 2" gage	DUREZA HARDNESS
150	Y.P. 0.2%: 138	58.8	19.15	

HARDNESS (In accordance to ASTM A370-14)
MID RADIUS: N/A HBW

SURFACE: 306.6 HBW

REMARKS:

This steel was heat treatment (QT) in continuous line heat treat
 Austenitized at 1572 °F By: 38 min Quenched in: Water spray at 84 °F
 Tempered at 1178 °F By: 43.867 min Cooled in air at temperature room. Stress free
 Conform to ASIM A193-10 Grade B7, ASTM A434-06 Class BC, ASME SA193-00 Grade B7,
 AISI 4140 & AISI 4142, ASTM A388-11

OBSERVACIONES: 1) Steel is free from mercury
 OBSERVATIONS 2) No Repair Welding 3) Fine Grain Practice
 4) Material according with ASTM A29-12, A255-10, A304-11 y A322-07 5) Vacuum Desgassed
 6) Calcium aluminum treated 7) Steel is Free From Radioactive Contamination
 8) Ultrasonic inspection results: ASTM E114-10 Satisfactory 9) Electric Furnace
 10) ASTM E381-01: Macro etch ratings: S=1, R=1, C=1
 11) Comply with EN 10204: 2004 inspection certificate 3.1

FECHA
DATE

14-Ene-2015 11:00

ASEGURAMIENTO DE CALIDAD
QUALITY ASSURANCE DEPARTMENT

Juan Ruiz Hdez.

F0.2-01FD

Jun 2016

26
B. 9/2018
MagellanS
17/12/16

21101-444-31248-4180
4102 - 444-312412
41881

ESSAR[®]
STEEL

ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date.: 8047540 000040 2016/12/17
Sold to Customer Name and Address: LES ACIER TRANSBEC (1997) LTÉE
BOUL LE CORBUSIER #201-4054
LAVAL, Québec, Canada
HTL 552

Shipment No. & Date.: 1200007761 2016/12/17
Ship to Customer Name and Address: LES ACIER TRANSBEC (1997) LTÉE
RUE JEAN COUTU 350
VARRENNES, Québec, Canada

TC No., Date & Time.: LSA-385217 2016/12/18 01:40:59
Customer PO No./Item: G-4621174
BOL No.: 1200007761
Carton Part No.:
Carrier: C P RAIL (CAD FUNDS) - NO. TX-381285

Customer Specification: HR STEEL SHEET HSLA SQ / SSI to the Chemistry of Multi Cert CSA G40.21 50W (2013) / CSA G40.21-44W (2013) Top Sem Critical Surface Improved Shape Gauge Spec NOM -
0.0033 +/- 0.0035.

Supplementary Instructions: Test Cert 1.mnu@conex.ca Test Cert 2: nathalie.legault@acertransbec.com

Imp TIR: Test Report For Info Only

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER PLEASE CALL (705) 946-4255 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OR DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.

MEETS EN 10284-3-1
ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWWESSARSTEELALGOMA.COM

ALL HEATS FULLY KILLED

HEATS INDICATED WITH (*) FINE GRAINED

HEATS INDICATED WITH (+) MADE IN CANADA FOR NAFTA duty purposes and NAFTA marking purposes

Dimensions (T x W x L)

Batch No.	Heat No./MS	Quantity	No. of Pcs	Dimensions (T x W x L)	Batch No.	Heat No./MS	Quantity	No. of Pcs	CUST USE: STRUCTURAL						
									CHEMICAL PROPERTIES						
0-1800 " x 48.001 "	HBKB149	4421C4-66	43,419 LB	1	0-1800 " x 48.001 "	HBKB148	4421C4-06	43,607 LB	1	Cr	Ni	Mo	Nb	V	Ti
0-1800 " x 48.001 "	HBKB153	4422C4-52	43,364 LB	1	0-1800 " x 48.001 "	HBKB152	4422C4-02	43,508 LB	1						
Heat No. (wt%)	C	Mn	P	Si											
4421C4 ⁺	0.18	0.87	0.016	0.006	0.020	0.02	0.01	0.03	0.01	0.028	0.017	0.000	0.001		
4422C4 ⁺	0.18	0.85	0.016	0.004	0.030	0.03	0.02	0.04	0.00	0.030	0.015	0.000	0.002		

KASHIF REHMAN

MANAGER METALLURGICAL SERVICES

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE NOMINAL SPECIFIED YIELD STRENGTH AND (2) THE ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date:	8047540 000040 2016/12/17	Shipment No. & Date:	1200007761 2016/12/17	TC No., Date & Time:	ESA-365217 2016/12/18 01:40:59
Sold to Customer Name and Address:	LES ACIER TRANSBEC (1997) LTÉE BOUL LE CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 5R2	Ship to Customer Name and Address:	LES ACIER TRANSBEC (1997) LTÉE RUE JEAN COUTU 350 VARENNESES, Quebec, Canada J3X 1P7	Customer PO No./Item:	G-462114
		BOL No.:	1200007761	Cust/Part No.:	
Customer Specification:	HR STEEL SHEET HSLA 50/55 to the Chemistry of Multi Cert CSA G40.21 50W (2013)/CSA G40.21 44W (2013) Top Semi Critical Surface Improved Shape Gauge type NOM -	Carrier:	CPRAIL (CAD FUNDS) - NDYX 381285		

Supplementary Instructions : Test Cert 1.mnr@collex.ca Test Cert 2. nathalie.legault@aciertransbec.com

Inspect : Test Report For Info Only

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.

THIS TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC.

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INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.

MEETS EN 10204-1

ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEALGOMA.COM

Tensile Tests

Heat No.	Batch No.	MECHANICAL PROPERTIES									
		SRCE	LAB	GAUGE	COND	METH	DIR	LOC	YIELD(KSI)	TENSILE(KSI)	EL SCALE
4421C4		DSPC	ALG	0.1800	AR	.2	T	F	59.0	72.0	2"
4422C4		DSPC	ALG	0.1800	AR	.2	T	F	57.0	73.0	2"

KASHIF REHMAN

MANAGER METALLURGICAL SERVICES

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MATERIAL SPECIFIED YIELD STRENGTH AND (2) THE PRODUCTS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO CLASSIFY THE STEEL OR AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

2/2

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0.500
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5017914

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 16^{1/2}
 QUANTITY INSPECTED: 16^{1/2}
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: 4x4
 SHEET SIZE RECEIVED: 4x4

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>44W</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # 442264 711852</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AD</u> / <u>8</u> DATE: <u>DEC 09 2017</u> / <u>2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

HOT ROLLED STEEL PLATE

ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018
MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES
MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B		REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	26/09/2017	SAC	WM

 DART AEROSPACE <small>Montgomery, Ontario, Canada</small>	
HOT ROLLED STEEL PLATE	
MT-HRS-P	
REV. B	
DESIGN BY: SAC 08/02/2017 DRAWN BY: SAC 09/22/2017 CHECKED: VM 09/22/2017 MFG. APPR: DP 09/22/2017 APPROVED: WM 10/05/2017 DATE: 9/27/2017	
SCALE: NTS WEIGHT: N/A AFTER PLATING	
1. DIMENSIONS ARE IN INCHES. 2. INNER PRINT LINE AND OUTLINE ARE IN INCHES. 3. DIMENSIONAL LIMITS APPLY.	
THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED AS A DESIGN TOOL ONLY. IT IS NOT TO BE COPIED OR USED FOR ANY PURPOSE OTHER THAN THE DESIGN OF THE DART AEROSPACE LTD. AIRCRAFT. IT IS THE PROPERTY OF DART AEROSPACE LTD.	

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HRS-P-0.375
 DATE: DEC 09 2017

PO / BATCH NO.: 038513/5017915

MATERIAL CERT REC'D: Y
 QUANTITY RECEIVED: 32 ft²
 QUANTITY INSPECTED: 32 ft²
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: 4X8
 SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	44 W
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Next IT 7093C4-51
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AD</u>	SIGNED OFF BY: _____
DATE: <u>DEC 09 2017</u>	DATE: <u>07/02/14</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

ITEM V.	DESCRIPTION	ECN #	DATE	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	26/09/2017	WM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

SPECIFICATION:

DRAFT NUMBER

HOT BOILED STEEL IN A TUBE

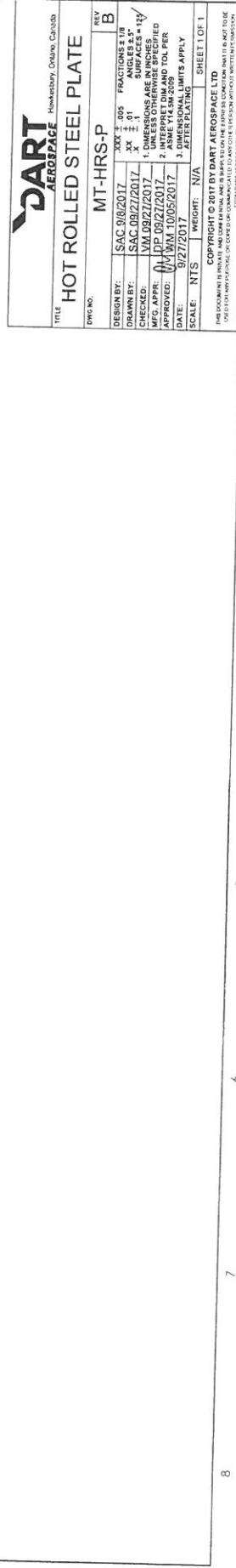
ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018
1/8" TIG WELDED STEEL PLATE

MT-HRS-P-II TITI

WHERE T.TTT IS PLATE THICKNESS IN INCHES

MT-HRS-P-0.750 TOLERANCES PER MANUFACTURER SPECIFICATIONS

EXAMPLE



-4-

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11

MECHANICAL PROPERTIES AND CHEMICAL COMPOSITION OF CAST ANALYSIS STEELS

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC PROCESS
OSA GAC 271/ASTM A572 300W/350W GR50 T12 (ERDEMIR 3246)
WITH SATISFACTORY RESULTS

AS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF
WITH SATISFACTORY RESULTS.

Winn, Erdemir / 303



TEST CERTIFICATE DATE
EN 10204 2014 TYPE 31

DATE 23.04.2017
CERTIFICATE NO. 150626
PAGE 10 OF 10

CUSTOMER
ORDER NO.
DIMENSIONS: TH
STANDARD & GRADE
PRODUCT TYPE & DESCRIPTION
LOT NO.
FOLLY KILLED AND FINE GAU PLATE

WELD: STEEL
TH: 12.75 / 23.3 / 30.6 / 35.5 / 40.1 SCH 1
CSA 340 CLASS 40.1 30W-35W-35W-35W-35W ERDEMIR 3246
LR, HOT ROLLED HEAVY PLATE AT THE M.L. EDGE

NO RECOVERY GAGING NO WELD REPAIR
FULLY KILLED AND FINE GAU PLATE

PRODUCTION INFORMATION

TICKET NO. WE. GR. /

WE.

GR.

NAME / NUMBER	S/N	MECHANICAL PROPERTIES			CHEMICAL COMPOSITION CAST ANALYSIS														
		UTS	YIELD	EL	UTS	YIELD	EL	Si	Mn	P	S	Cr	Al	N	V	N	Cr	Al	N
711852	7118520092231	TT	281.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	7118520093101	TT	283.3	561.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	7118520093201	TT	368.3	551.1	36				0.176	1.182	0.015	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	7118520094101	TT	391.5	561.9	36				0.176	1.182	0.015	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	7118520094201	TT	381.5	561.9	36				0.176	1.183	0.015	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200950101	TT	363.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200951201	TT	358.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960201	TT	381.5	561.9	36				0.176	1.182	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960301	TT	368.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960401	TT	366.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960501	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960601	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960701	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960801	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200960901	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961001	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961101	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961201	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961301	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961401	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961501	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961601	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961701	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961801	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200961901	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962001	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962101	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962201	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962301	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962401	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962501	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962601	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962701	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962801	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200962901	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963001	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963101	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963201	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963301	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963401	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963501	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963601	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963701	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963801	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200963901	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964001	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964101	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964201	TT	381.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964301	TT	388.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964401	TT	385.3	551.1	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041	0.072	47	
711852	71185200964501	TT	361.5	561.9	36				0.176	1.183	0.016	0.07	0.206	0.029	0.322	0.041			

TEST CERTIFICATE

EN 10224 2004 TYPE 3

DATE 25/04/2017
CERTIFICATE NO. 70562961
PAGE NO. 2

CUSTOMER
ORDER NO
3 MENSİS
STANDARD & CODE
PRODUCT TYPE & DEFINITION

3 MENSİS

WORTH STEEL

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ERGİ TİC. LTD. TURKISH IRON & STEEL
OUTSTANDING CAPITAL: 350,000,000 TL

TEST CERTIFICATE
EN 10204 2004 TYPE 2

DATE: 25.04.2011
CERTIFICATE NO: TC02251
PAGE NO: 1

BUSINESS
DRCER NO:
D.MENS. NO:
STANDARDS & GRADE:
PRODUCT TYPE & DESCRIPTION: U.S. HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 10000
FOLLY KILLED AND FINE GRAIN PROCESS

PRODUCT INFORMATION

TICKET NO: 10000
WEIGHT (MT): 12.301
HEAT NO: 711855
COIL NO: 01
PLATE NO: 01 SAN

TEST NO	TEST	MECHANICAL PROPERTIES		CHEMICAL COMPOSITION CAST ANALYSIS										
		UTS	YIELD	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	TEST	
0237025254112-301	711855	711855020420	TT	414.8	555.1	34								
		7123002238010	8											
711855	711855020110	TT	325.4	560.9	36									
711855	711855020020	TT	365.4	560.9	35									
711855	711855020010	TT	414.8	555.1	34									
711855	7118550200220	TT	414.8	555.1	34									
711855	7118550200120	TT	365.4	560.9	35									
711855	7118550200220	TT	365.4	560.9	35									
711855	7118550200120	TT	414.8	555.1	34									
023702525512-450	711855	710230062386010	TT	414.8	555.1	34								
		710230062386010	8											
711855	7118550200110	TT	325.4	560.9	35									
711855	7118550200120	TT	365.4	560.9	35									
711855	711855020020	TT	414.8	555.1	34									
711855	7118550200220	TT	414.8	555.1	34									
711855	7118550200120	TT	365.4	560.9	35									
711855	7118550200220	TT	365.4	560.9	35									
711855	7118550200120	TT	414.8	555.1	34									
023702525512-450	711855	7118550200420	TT	414.8	555.1	34								
		7123006240101	8											

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF
CSA G4.21/ASTM A572 300W-35W/N GR50 T2 (ERDEMIR 3226)

WITH SATISFACTORY RESULTS



NOTE: T:Top, B:Bottom, E:End, T:Transverse, L:Longitudinal, P:Piece of Slice, P.P:Piece of Plate
MERSIS Number (Istanbul Head Office): 0322-0000-1260-02020; Trade Registry Number (Istanbul Department): 90653; Trade Registry Number (Eregli Department): 1514777
Head Office: Istanbul: Barbaros Mah. Ardit Sok. No: 6 34746 Ataköy, İSTANBUL, TURKEY
www.erdemir.com.tr

CUSTOMER

NUMBER

DIMENSIONS

STANDED & GRADE

PRODUCT TYPE & DEFINITION

LOT NO

DATE

WEIGHT

WITH STEEL

1800000000

1570 X 2438 X 8096 X 0.500 X 95 X 240 INCH

CSA G40 21/ASTM A572 300W-35W G50 12 (ERDEMIR 3245)

25/04/2011

CERTIFICATE NO

7000266

PAGE NO

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LOT NO 1 NO REWORK CORROSION NO WELD REPAIR
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DATE 25/04/2017
CERTIFICATE NO 7000026

CSA G40 21/ASTM A572 30CW-35CW GR50 T2 (ERGEMIR 3246)

WITH SATISFACTORY RESULTS
WITH THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF

W.E.R. No. 1001, W-1001, E-End, T: Transverse, L: Longitudinal, P: S. Piece of Size, P.P. Piece of Plate
Head Office: Istanbul Head Office: 0332-0006-4260-0020; Trade Registry Number: (Istanbul Department): 90559 Trade Registry Number (Erzurum Department): 1574-212
Head Office: Istanbul: Barbaros Mah. Ardit Sok. No: 6 34746 Ataköy İSTANBUL - TURKEY

www.Edu2411.com

TEST CERTIFICATE
EN 10264-2004 TYPE 3

DATE: 20/02/2017
CERTIFICATE NO: 326095
PAGE: 2

Customer: ERDEMIR
Order No: 1270047436
Dimensions: 0.500 x 0.500 x 240 MM
Standard: EN 10264-2004 (ERDEMIR 3246)
Product: HOT ROLLED HEAVY PLATE WITH MILLED EDGE

LOT NO: 1 NO MERCURY COMPOUNDS NO REED SEPARATE

PRODUCT INFORMATION

TICKET NO.	WEIGHT (MT)	COIL NO.	PLATE NO.	P.S. OR P.P. TEST	MECHANICAL PROPERTIES			CHEMICAL COMPOSITION ANALYSIS										
					YIELD STRENGTH (%)	EL. TEST. SH.	VAL	VAL	VAL	VAL	VAL	VAL	VAL	VAL	VAL	VAL	VAL	
0237025335	12.400	731566	73156602000020	TT	392.1	561.5	34											
		731566	73156602000410	TT	387.4	569.9	36											
		731566	73156602000420	TT	387.4	559.9	36											
		731566	73156602000120	TT	359.1	581.5	34											
		731566	73156602000201	TT	397.4	569.9	35											
		731566	73156602000220	TT	387.2	566.8	36											
		731566	73156602000310	TT	387.1	561.5	34											
		731566	73156602000320	TT	386.1	581.5	34											
		731566	73156602000401	TT	387.2	569.9	36											
		731566	73156602000420	TT	387.4	559.9	36											
		731566	73156602000510	TT	395.2	563.3	38											
		731566	73156602000610	TT	395.2	568.5	38											
		731566	73156602000720	TT	415.6	569.9	35											
		731566	73156602000820	TT	415.6	569.8	36											
		731566	73156602000910	TT	395.2	568.8	36											
		731566	73156602001020	TT	395.2	568.8	36											
		731566	73156602001040	TT	415.6	569.9	36											

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF

EN 10264-2004 (ERDEMIR 3246)
WITH SATISFACTORY RESULTS.

KANDEMI
DEMİR VE ÇELİK
ÇALIŞMA LABORATUVARI
QUALITY MANAGEMENT

ERDEMIR
DEMİR VE ÇELİK
ÇALIŞMA LABORATUVARI
QUALITY MANAGEMENT

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QUALITY MANAGEMENT

NOTE: T:Top, M:Middle, E:End, T:Transverse, L:Longitudinal, P:Piece of Sheet, P.P.Piece of Plate

NUMBER: (Istanbul Head Office): 0322-0006-4760-0020, Trade Registry Number (Erzincan Department): 90659, Trade Registry Number (Erzincan Department): 1574/77

Head Office: Barbaros Mah. Ardit Sok. No: 6 34746 Ataşehir, İSTANBUL, TURKEY

DATE 25/04/2014
CERTIFICATE NO 1660261
PAGE 4

POUL KILLED AND FINE GAIN PRACTICE
PRODUCT INFORMATIONS
TICKET NO/RIGHT HEAT NO 1 COUPLES

TICKET NO WEIGHT HEAT NO 661

ET NO WEIGHT HEAT NO 80

CSA G40.21/ASTM A572 300W-350W/ GR50 T2 / PROFESSIONAL CERTIFIED THAT THE MATERIAL

WITH SATISFACTORY RESULTS.

www.eidemir.com.tr



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

LESSON
STEEL

DART \rightarrow 64891

A7B4 4/11/0 48100
44-36110

SO No. /Item & Date:	8050589 05/06/2017/03/12	Shipment No. & Date:	1200008792 2017/03/12	TC No., Date & Time:	ESA-363275 2017/03/13 - 01:40:39
Sold to Customer Name and Address:	LES ACIER TRANSBEC (1997) LTÉE BOUL LE CORBUSIER #201-4054 LAVAL, Quebec, Canada H7L 5R2	Ship to Customer Name and Address:	LES ACIER TRANSBEC (1997) LTÉE RUE JEAN COUTU 350 VARENNES, Quebec, Canada J3X 1P7	Customer PO No/Item:	G-46220(REV) / 6
		BOL No.:	1200008792	Cust Part No.:	
		Carrier:			CP RAIL (CAD FUNDS) - CGLX 12068

Supplementary Instructions : Test Cert 1:mrl@collex.ca Test Cert 2: nathale.legault@aciertsbsc.com

InspTR : Test Report For Info Only

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES. THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECIPIENT, PLEASE CALL (705) 454-4554 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE.

ALL HEATS FULLY KILLED.

HEATS INDICATED WITH (•) FINE GRAINED.
HEATS INDICATED WITH (+) MADE IN CANADA FOR NAFTA COUNTRY PREFERENCE AND NAFTA MARKETING PURPOSES.

Dimensions (T x W x L)	Batch No.	Quantity	Pcs
0.3550 x 48.0000	XBK#9191	7093C451	42 194.10

CHEMICAL PROPERTIES												
Heat No. (wt%)	C	Mn	P	S	Cr	Ni	Mo	Al	Nb			
7093C4 ⁺	0.17	0.87	0.009	0.004	0.030	0.02	0.03	0.00	0.017			
MECHANICAL PROPERTIES												
Tensile Tests												
Heat No.	Batch No.	SRCE	LAB	GAUGE	COND	METH	DIR	LOC	YIELD(KSI)	TENSILE(KSI)	EL SCALE	ELONG(%)
7093C4		DSPC	ALG	0.3650	AR	.2	T	F	56.0	76.0	2°	42

Consejo

KASHIF REHMAN
MANAGER METALLURGICAL SERVICES

WARNING™ THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYTICAL AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO CHARGE THE RECIPIENT FOR ANY SUBSTANCES OR SERVICES OTHER THAN THOSE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSES OTHER THAN THE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSES OTHER THAN THE INDICATED.

Date:2017/03/16 Time:2017-03-26-53 Page:2